

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) Storage medium for the storage of information and data, wherein the storage medium comprises at least two interconnected disks of which at least one comprises a storage glass material and another comprises a polymer layer, having a reflective coating, arranged between the polymer layer and the storage glass material a dielectric, notably disk-shaped, storage material upon which is ~~or~~ may be arranged on at least one side a donor medium for metallic ions, whereby by irradiation with a focused laser beam of the storage medium, ~~in particular with a laser beam~~, metallic ions ~~may be~~ are transferred from the donor medium into the storage medium glass material.
2. (Currently Amended) Storage medium for the storage of information and data, according to claim 1, wherein the storage medium glass material comprises ~~a dielectric, notably disk-shaped, storage material, featuring at least a local~~ localized metallic ion doping, whereby by irradiation~~[[,]]~~ by a the focused laser beam, ~~the~~ metallic ions may be converted into metallic particles ~~and/or~~ or aggregations of metallic particles.
3. (Canceled)
4. (Currently Amended) Storage medium according to claim 1, wherein the metallic ion doping is arranged on at least one side near ~~the a flat surface of one of the~~ at least two interconnected disks comprising in the storage glass material.

5. (Currently Amended) Storage medium according to claim 1, wherein the metallic doping is executed with ions are selected from the group comprising of silver, and/or gold, and/or platinum, and/or and copper.

6. (Canceled)

7. (Currently Amended) Storage medium according to claim 1, wherein the material polymer layer features an optically functional structure forming in particular comprising information for the guidance of a read/write beam.

8. (Canceled)

9. (Currently Amended) Storage medium according to claim 1 wherein a metallic ion doping in the proximity of the a surface of the storage glass material is arranged on the a side of the storage glass material facing the metallic polymer layer.

10. (Currently Amended) Storage medium according to claim 4 7, wherein the optically functional structure in the material polymer layer is arranged on the a side facing the storage glass material.

11. (Canceled)

12. (Currently Amended) Storage medium according to claim 1, wherein the stored information or and data consist of comprises a spatial arrangement of storage material regions with and without metallic particles/metallic particles and ions.

13. (Currently Amended) A Process process for the storage and/or read-out of data with a storage medium, notably according to claim 1,

the storage medium comprising at least two interconnected disks of which at least one comprises a storage glass material and another comprises a polymer layer, having a reflective

coating, arranged between the polymer layer and the storage glass material upon which is arranged on at least one side a donor medium for metallic ions; and

wherein by means of irradiation of the storage glass material medium/material by focused electromagnetic and/or or particle irradiation, particularly by means of a laser beam, doping of the storage medium/material glass material is carried out with metallic ions from a donor medium arranged on the storage medium/material glass material.

14. (Currently Amended) Process for the storage and/or read-out of data with a storage medium according to claim 4 13, wherein by irradiation of the storage medium/material glass material by electromagnetic and/or or particle irradiation, by means of a laser beam in a dielectric storage material doped at least locally with metallic ions, information is stored in storage glass material by local localized formation of metallic particles out of metallic ions, and/or and stored information is read out by scanning the storage glass material with the said irradiation in transmission and/or reflexion or reflection.

15. (Currently Amended) Process according to claim 4 13, wherein reading and writing of the information with a laser beam takes place in the a visible spectral region, notably in the blue wavelength region.

16. (Currently Amended) Process according to claim 4 14, wherein the formation of metallic particles and/or metallic particle aggregations takes place in the first step of irradiation by thermally induced formation of metallic particle nuclei by the reduction of metallic ions, and in a second step, growth of metallic particle nuclei into a metallic particle aggregation occurs by resonance-enhanced absorption of radiation, notably by reason of surface plasmon resonance.

17. (Currently Amended) Process according to claim 4 13, wherein the deletion of stored information and data takes place by heating the storage medium.

18. (Canceled)
19. (New) The Process according to claim 16, wherein the reduction of metallic ions occurs in response to a heating of the entire storage medium above a transformation temperature of the glass storage medium.
20. (New) The Process according to claim 13, wherein analog information is stored by varying an intensity of the electromagnetic or particle irradiation.